

THAT WHICH IS CLAIMED:

1. A fiber optic cable comprising:
at least one bundle, said at least one bundle comprising a plurality of non-tight buffered optical fibers and a binder element:
said binder element maintaining the plurality of non-tight buffered optical fibers in said at least one bundle:
a separation layer generally surrounding said at least one bundle;
a cable jacket surrounding said separation layer which inhibits adhesion between said at least one bundle and said cable jacket without surrounding each bundle of optical fibers with a respective jacket: and
said fiber optic cable excluding a grease or a grease-like composition being in contact with said at least one bundle for filling interstices of the cable thereby blocking water from flowing through the cable.

2. The fiber optic cable according to claim 1, said binder element being selected from a binder thread, a binder yarn, a thin film, or a tape.

3. The fiber optic cable according to claim 1, said fiber optic cable having 144 non-tight buffered optical fibers with a cable diameter of about 10 mm or less.

4. The fiber optic cable according to claim 1, said plurality of non-tight buffered optical fibers further including a tight buffered layer, and said fiber optic cable having 144 tight buffered optical fibers with a cable diameter of about 20 mm or less.

5. The fiber optic cable according to claim 1, said binder element being a binder thread encircling said plurality of non-tight buffered optical fibers.

6. The fiber optic cable according to claim 1, said separation layer being selected from a fiberglass yarn, an aramid yarn, an armor layer, a water-swellaable tape, a thin film, or a soft housing.

7. The fiber optic cable according to claim 1, said separation layer having a tensile strength characteristic.

8. The fiber optic cable according to claim 1, said at least one bundle being stranded around a central member.

9. The fiber optic cable according to claim 1, said fiber optic cable being a portion of a breakout cable.

10. A fiber optic cable comprising:
at least one bundle, said bundle comprising a plurality of non-tight buffered optical fibers and at least one binder thread encircling the plurality of optical fibers to thereby maintain the plurality of optical fibers in the bundle;
a separation layer surrounding said at least one bundle;
a cable jacket surrounding said separation layer which inhibits adhesion between said at least one bundle and said cable jacket without surrounding each bundle of optical fibers with a respective jacket; and
said fiber optic cable excluding a grease or a grease-like composition being in contact with said at least one bundle for filling interstices of the cable thereby blocking water from flowing through the cable.
11. The fiber optic cable according to claim 10, said at least one binder thread encircling said plurality of non-tight buffered optical fibers.
12. The fiber optic cable according to claim 10, said at least one binder thread comprises a looper thread and a needle thread that cooperate to encircle the plurality of optical fibers.
13. The fiber optic cable according to claim 12, said looper thread and said needle thread are secured to one another by a plurality of overlocked stitches.
14. The fiber optic cable according to claim 10, said at least one binder thread includes a silicone wax emulsion finish.
15. The fiber optic cable according to claim 10, said fiber optic cable being a portion of a breakout cable.

200, 1,

16. A fiber optic cable comprising:

- a central member;
- at least one bundle, said at least one bundle comprising a plurality of non-tight buffered optical fibers and a binder element;
 - said binder element maintaining said plurality of non-tight buffered optical fibers in said at least one bundle;
- a cable jacket surrounding said at least one bundle;
- a separation layer for inhibiting adhesion between said at least one bundle and said cable jacket; and
- said fiber optic cable excluding a grease or a grease-like composition being in contact with said at least one bundle for filling interstices of the cable thereby blocking water from flowing through the cable.

17. The fiber optic cable according to claim 16, said binder element being selected from a binder thread, a thin film, or a tape.

18. The fiber optic cable according to claim 16, said binder element being at least one binder thread encircling said plurality of non-tight buffered optical fibers.

19. The fiber optic cable according to claim 16, said at least one binder thread comprises a looper thread and a needle thread that cooperate to encircle the plurality of optical fibers.

20. The fiber optic cable according to claim 19, said looper thread and said needle thread are secured to one another by a plurality of overlocked stitches.

21. The fiber optic cable according to claim 16, said at least one binder thread includes a silicone wax emulsion finish.

22. The fiber optic cable according to claim 16, said separation layer being selected from a fiberglass yarn, an aramid yarn, an armor layer, a water-swellable tape, a thin film, or a soft housing.

23. A fiber optic cable comprising:
at least one bundle, said at least one bundle comprising a plurality of optical fibers
and a binder element:
said binder element maintaining said plurality of optical fibers in said at least one
bundle;
an armor layer surrounding said at least one bundle; and
said fiber optic cable excluding a cable jacket within said armor layer.

24. The fiber optic cable according to claim 23, said plurality of optical fibers
being non-tight buffered.

25. The fiber optic cable according to claim 23, said binder element being
selected from a binder thread, a binder yarn, a thin film, or a tape.

26. The fiber optic cable according to claim 23, said binder element being a
binder thread encircling said plurality of optical fibers.

27. The fiber optic cable according to claim 23, said fiber optic cable further
comprising a cable jacket generally surrounding said armor layer.